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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,399	02/24/2004	Mark Alvis Wahi	10030266-1	2876

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EXAMINER	
TU, JULIA P	

ART UNIT	PAPER NUMBER
2611	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,399	WAHI ET AL.	
	Examiner	Art Unit	
	Julia P. Tu	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 5, 7, 10-12, 14, 15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Davies et al. (US 7,003,066).

(1) with regard to claim 1:

As shown in figures 6-8, Davies discloses a method, comprising:

monitoring a number of up and down frequency corrections made by a clock and data recovery phase-lock loop (212, 214 in figure 6);

for each of a number of time periods, netting together the number of up and down frequency corrections made by the phase-lock loop during the time period (216, 218 in figure 6); and

deriving one or more operating indications from the net numbers (234, 235 in figure 6).

(2) with regard to claim 2:

Davies further teaches de-serializing the monitored up and down frequency corrections to form parallel words of up and down frequency corrections (deserializer 200 in figure 6, column 13, lines 24-29); and

for each of the number of time periods, performing said netting on the up and down frequency corrections contained within one or more of the parallel words (214, 216 in figure 6).

(3) with regard to claim 3:

Davies further teaches generating an operating indication if any one of the net numbers is non-zero (column 11, lines 20-35).

(4) with regard to claim 5:

Davies further teaches comparing each net number to one or more thresholds (blocks 234 and 235 in figure 6); and if any of the net numbers exceeds one of the thresholds, generating an operating indication (column 11, lines 20-35).

(5) with regard to claim 7:

Davies further teaches wherein the one or more thresholds comprise positive and negative thresholds (column 10, lines 61-67).

(6) with regard to claim 10:

As shown in figures 6-8, Davies discloses an apparatus, comprising:

an accumulator stage to i) receive up and down frequency corrections from a clock and data recovery phase-lock loop (212, 214 in figure 6), and ii) for each of a number of time periods, net together the number of up and down

frequency corrections that were received during the time period (216, 218 in figure 6);

a timer to reset the accumulator at the start of each time period (CTRS: count reset in figure 6); and

logic to compare each net number to one or more thresholds and provide one or more operating indications based on said comparisons (234, 235 in figure 6).

(7) with regard to claim 11:

Davies further teaches a de-serializing stage, between the phase-lock loop and the accumulator stage, to output sets of the up and down frequency corrections to the accumulator stage as parallel words of up and down frequency corrections (block 200 in figure 6).

(8) with regard to claim 12:

Davies further teaches a capture stage to capture net numbers from the accumulator stage and, at the end of each time period, provide a net number to said logic (blocks 216, 218, 234, 235 in figure 6).

(9) with regard to claim 14:

Davies further teaches accumulator stage, timer and logic are clocked by a test clock having a frequency that is lower than that of the phase-lock loop (column 9, lines 9-22).

(10) with regard to claim 15:

Davies further teaches one or more thresholds is zero, and wherein said logic sets an operating indication if any of the net numbers is non-zero (column 11, lines 20-35).

(11) with regard to claim 18:

As shown in figures 6-8, Davies discloses an apparatus, comprising:

means for monitoring a number of up and down frequency corrections made by a clock and data recovery phase-lock loop (212, 214 in figure 6);

means to, for each of a number of time periods, net together the number of up and down frequency corrections that were made by the phase-lock loop (216, 218 in figure 6);

and means to derive one or more operating indications from the net numbers (234, 235 in figure 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4, 6, 9, 13, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. (US 7,003,066) in view of Frisch et al. (US 6,295,315).

Davies discloses all of the above subject matters except for the operating indication is generated by setting a built-in self-test sticky bit. However, operating indication is generated by setting a built-in self-test sticky bit is well known in the art as it is evident by Frisch et al. (column 5, lines 1-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Frisch into the teaching of Davies so as to compress the measurement data and reduce data transfer and measurement times as to enhance accuracy in the measurement of jitter (column 5, lines 14-18).

5. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davies et al. (US 7,003,066) in view of Song (US 6,424,635).

Davies discloses all of the above subject matters except for setting the new threshold equal to a net number if the net number exceeds the threshold. However, setting a maximum number which exceeds the threshold as a new threshold is well known in the art as it is evident by Song (column 5, lines 28-34). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Song into the teaching of Davies so as to improve interference correction.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julia P. Tu whose telephone number is 571-270-1087. The examiner can normally be reached on 7:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh M. Fan can be reached on 571-272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J.T.
04/27/2007

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER